



# Decision Making in Healthcare

**Dr. Israa Al-Rawashdeh MD, MPH, PhD**

**Faculty of Medicine**

**Mutah University**

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# OUTLINE

Definitions

Types of problems, decisions, and conditions of DM.

Models of decision making

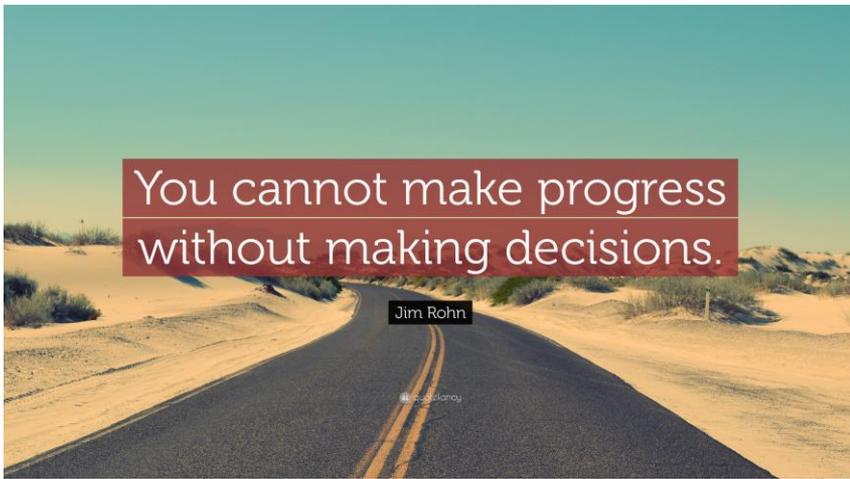
Evidence Based Decision Making.



# Definitions

- A goal-directed behaviour in the presence of options.
- “The thought process of selecting a logical choice from the available options.” (Business Dictionary).
- The process of *identifying* and *solving problems* (Daft 1998).
- The process of transforming *inputs into outputs*. The input is information, the output is new information (Herrmann 2015).

**Is it this simple??**



**Well; It is not!**

- Healthcare operates within a complex system.
- Making decisions in health care is often complicated by factors such as:
  - Uncertainty of information,
  - Varying understandings of evidence, and
  - The multiple perspectives of decision makers.

Therefore,

- There will be many economic, political, social and environmental factors which affect any decision-making process

**Remember:** The decision not to do something is as important as the decision to do something, and a non-decision is also an output.



# Types of problems



Managerial decision-making typically centers on *three* types of problems:

- **Crisis** : A crisis problem is a serious difficulty requiring immediate action. (Natural disasters, sudden financial..etc..)
- **Non-Crisis**: A non-crisis problem is an issue that requires resolution but does not have the importance and immediacy characteristics of a crisis. (routine problems)
- **Opportunity Problems**: An opportunity problem is a situation that offers strong potential for significant organizational gain if appropriate actions are taken (e.g. availability of new technology. changes in population needs. Competitor vulnerabilities. lack of dominant competition)

# Types of decisions (Programmed vs. Non programmed Decisions)

## • Programmed decision

- One that is made regularly, repetitive, routine.
- Structured problems (clear problem, obvious criteria)
- Information are available and complete.
- Efficiency expected
- Examples: Pre-set rules, policies, procedures , computerized based.

## • Non-programmed decision

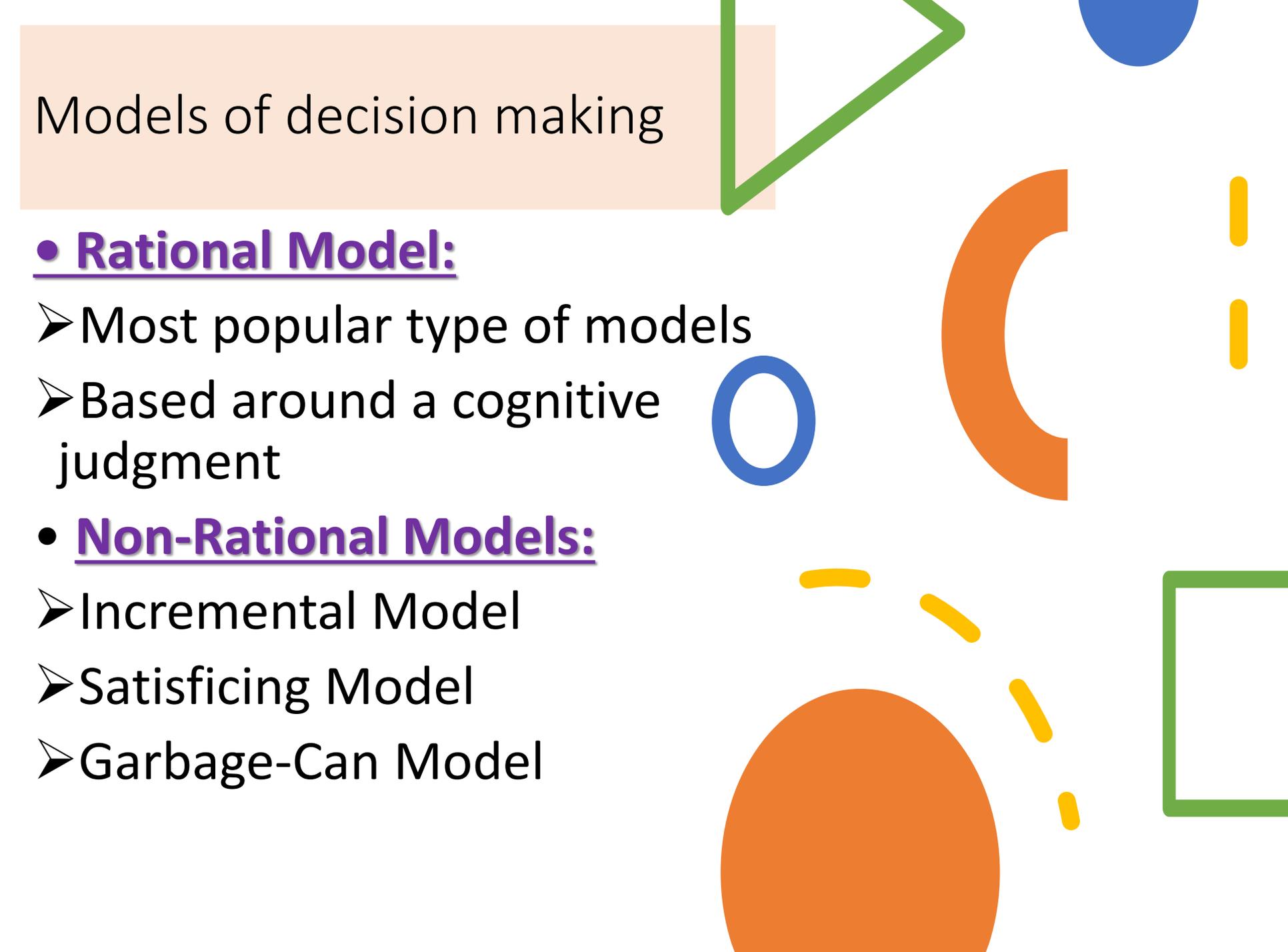
- Non- routine problems of an organization.
- occurs less frequently than a programmed decisions.
- They are unique in nature and every situation requires special attention
- Unstructured (unclear or incomplete information)
- More “important” problem
- Judgment and creativity is needed

# Decision Making Conditions

- **Certainty**: A situation in which a manager can make an accurate decision because the outcome of every alternative choice is known.
- **Risk**: A situation in which the manager is able to estimate the likelihood (probability) of outcomes that result from the choice of particular alternatives but information are incomplete.
- **Uncertainty** –The decision-maker is not aware of all available alternatives, the risks associated with each, and the consequences of each alternative or their probabilities.



# Models of decision making



- **Rational Model:**

- Most popular type of models
- Based around a cognitive judgment

- **Non-Rational Models:**

- Incremental Model
- Satisficing Model
- Garbage-Can Model

## Rational (Classical) model:

- This is the classical, scientific approach to decision-making which views the process as *orderly and rational*.
- It is assumed that decision makers have nearly all information about a problem, its causes, and its solutions, and a large number of alternatives can be weighted and the best one selected.



# Non-Rational: Incremental model

- ‘Slowly building the blocks’
- This model suggests that major decisions are broken down in small steps taking place in **three** major phases: the identification, development, & selection phases.
- Not completely rational; analysis is limited, information is unclear and subject to various interpretations.
- Incremental *trial-and-error process*.
- They correct or avoid mistakes through a sequence of incremental changes

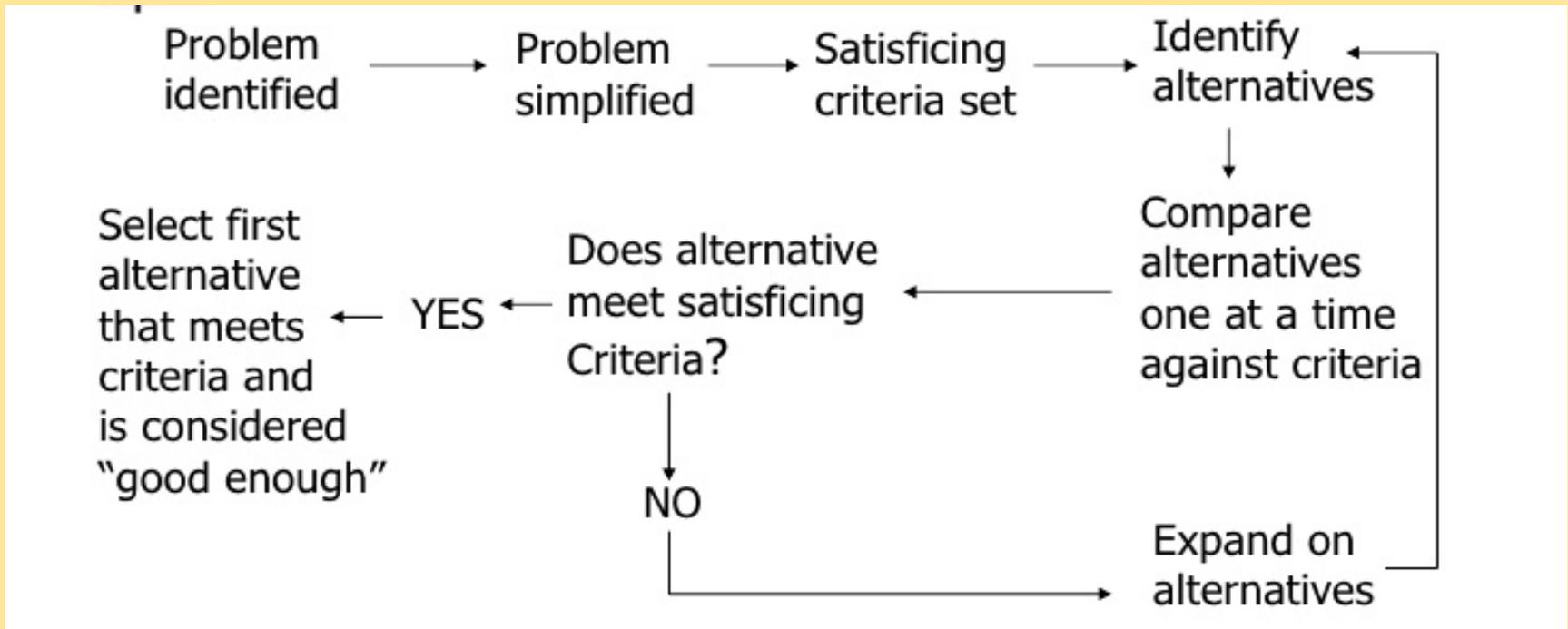
what are other words for muddle through?



survive, manage, get by, make it, get along, make out, fare, succeed, get on, do



# Non-Rational: Satisficing Model

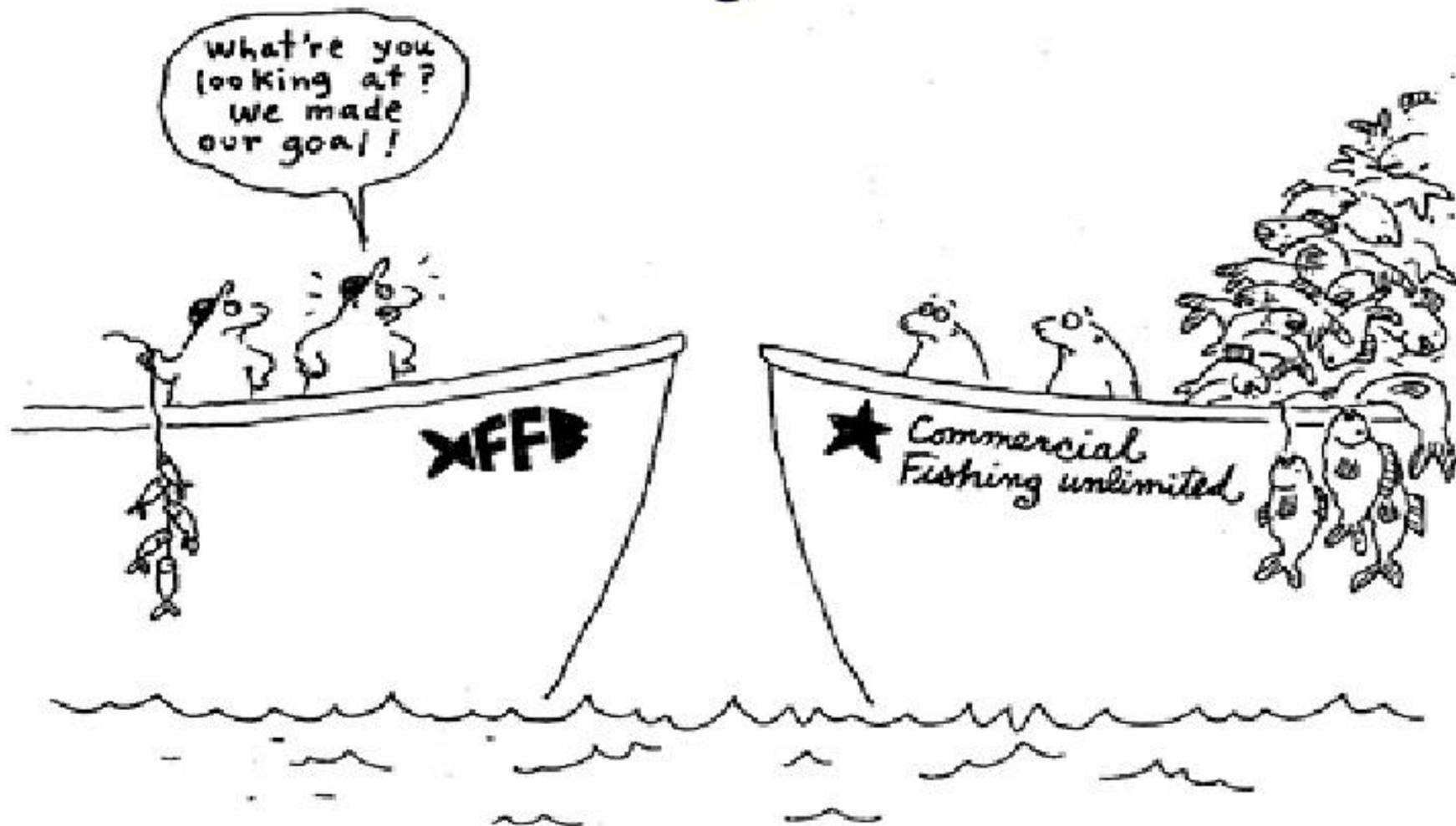


- Satisficing consists of choosing a solution that meets minimum standard of acceptance.

- It is best when there is inadequate time, information, or ability to deal with the complexity associated with the rational process.

- Therefore, it stops seeking alternatives when find one that is *good enough* (Not seeking the optimal decision).

# Law of Satisficing



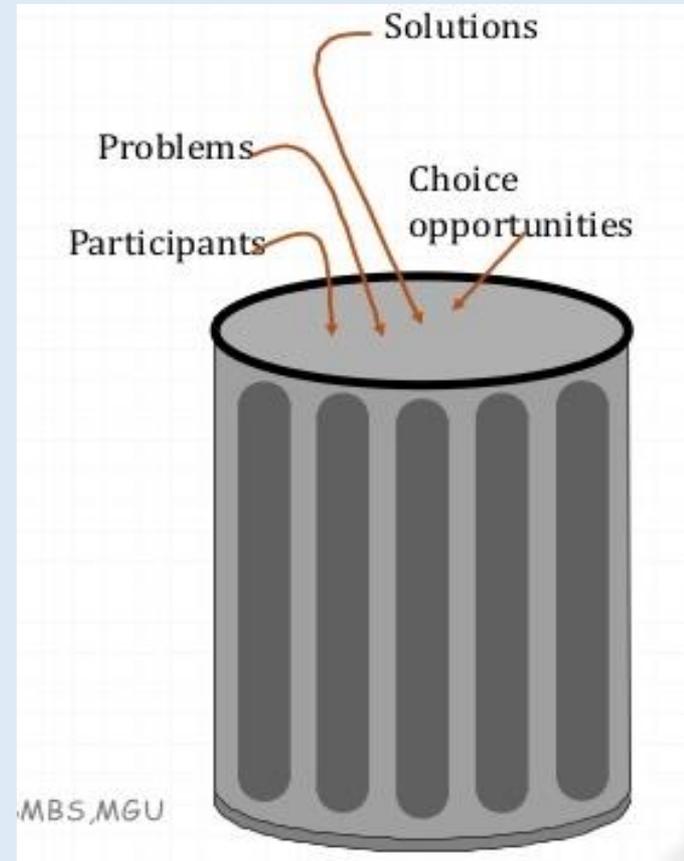
# Non-Rational: Garbage can model

This describes decision-making processes in organizations characterized by uncertainty, where objectives are not well defined or inconsistent for individual decision-makers.

Decisions are made as a result of the interaction between: ***Problems, solutions, participants, and choice opportunities.***

In other words, solutions and problems are matched rather than through a step-by-step process

Does not follow any orderly steps (Random)





# The Role of Intuition in Decision Making

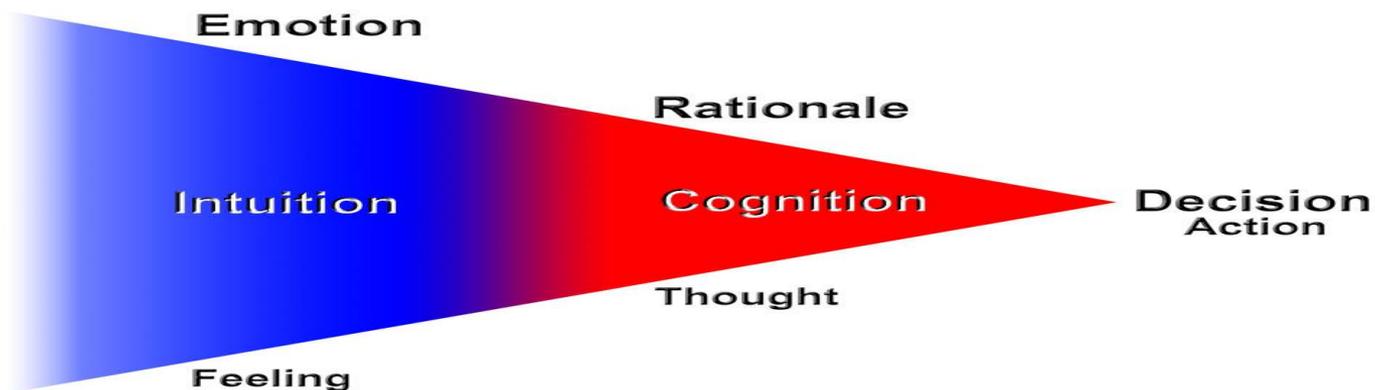
"Told you so."

Sincerely,  
Your Intuition.

Represents judgments, insights, or decisions that “come to mind on their own, without explicit awareness of the suggested alternatives and without clear evaluation of the validity of these alternatives”.

Rapid, automatic and relatively effortless decision-making

**Most organizational decisions are not made in a logical, rational manner (Daft 2012)**



# Who Has the D?

Rogers and Blenko 2006

- **Proposer (Recommend):** People in this role are responsible for making a proposal, gathering input, and providing the right data and analysis to make a sensible decision in timely fashion.
- **Approver (Agree):** Individuals in this role have veto power – yes or no – over the recommendation.
- **Input:** These people are consulted on the decision. Because the people who provide input are typically involved in implementation, recommenders have a strong interest in taking their advice seriously.
- **Ultimate Decision Maker (Decide):** The person is the formal decision maker. The decider is ultimately accountable for the decision, responsible for consequences and has the authority to resolve any problem in the decision-making process and to commit the organization to action.
- **Executor (Perform):** Once a decision is made, a person or group of people will be responsible for executing it. In some cases, the people responsible for implementing a decision are the same people who recommended it.



*Provide input to a recommendation*  
– *Facts first, then judgment*

**I**nput

*Be accountable for making a decision happen once made*

**R**ecommend

*Gather relevant facts and apply judgment to recommend a decision or action*

**D**ecide  
*Make the final decision*  
– *"commit the organization to action"*

**P**erform

**A**gree

*Formally approve a recommendation*  
– *Implies veto power*

# Characteristics of an Effective Decision-Making

- It focuses on what is important
- It is logical and consistent.
- It acknowledges both subjective and objective thinking and mixes analytical with intuitive thinking.
- It requires only as much information and analysis as is necessary to solve a particular problem.
- It encourages and guides the gathering of relevant information and informed opinion.
- It is straight forward, reliable, easy to use, and flexible.

# Evidence-Based Decision Making



If doctors can do it...



administrators can do it?

|

# Origins of the Evidence-based Movement

1981: Dr. David Sackett, introduced a new method for physicians reading the literature. Called it “critical appraisal.”

1990: Dr. Gordon Guyatt, introduced a new concept he called “Scientific  
Medicine” !

1991 Guyatt coined “Evidence-Based Medicine” (EBM).

- Aimed to improve the quality of information used to make decisions.
- Migrated to other sectors - dentistry, nursing, management, etc..

# What is Evidence-Based Medicine?

“The process of finding relevant information in the medical literature to address a specific clinical problem; In short, patient care based on evidence derived from the best available (“gold standard”) studies.”

John Last, *A Dictionary of Epidemiology*, Oxford, 1995



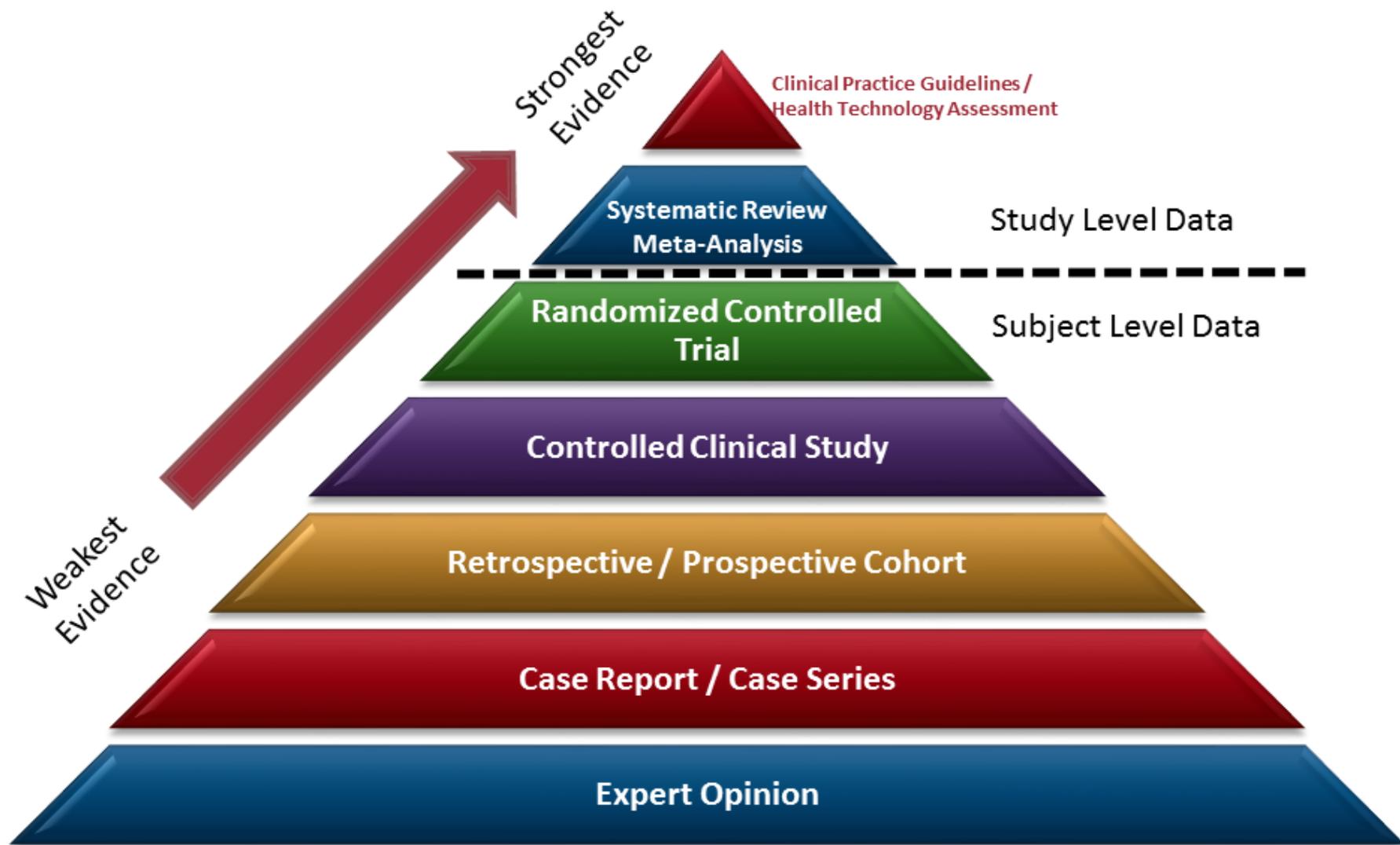
# Evidence-based . . .

## Evidence-based Medicine (EBM)

- Patient care based on evidence from the best available studies

## Evidence-based Decision Making

- Evidence-based decision-making Decisions should be based on a combination of critical thinking and the 'best available evidence'.
- EBM extended to include population-based decision making in the form of guidelines and formulary decisions using formal evidence criteria and deliberative processes



# Why Evidence- Based?

- So much information, too little time!
- problems which requires immediate attention can be better focused on.
- Reduces expenses
- It ensures transparency and accountability.
- Value of scientific knowledge for decision making.
- Need high quality, filtered information to make informed decisions
- Decisions should not be based only on intuition, opinion or subjective information

# Challenges of EBDM

- Periodic statistics (generated from day to day administration) are important source of evidence (clear, objective, numerical data ) are needed.
- The availability of statistical information does not always lead to good decision making: skill and knowledge is also required to be able to access, understand, analyze and communicate statistical information.
- Clear or consistent evidence may not be available at the time of decision making.
- Politics may influences evaluation design, process and use of findings

Thank you

**The man who insists upon seeing with perfect clearness before he decides, never decides.**

Good decisions  
come from experience,  
and experience comes  
from bad decisions.